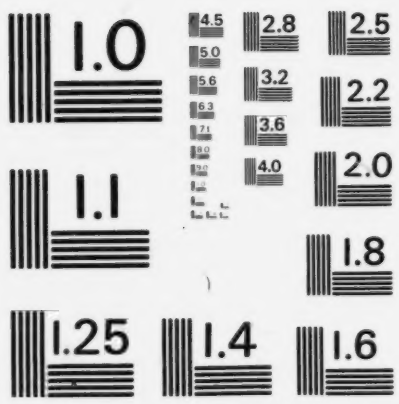
I OF I
ED
033174



MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

DOCUMENT RESUME

ED 033 174 UD 009 138

By-Gordon, Edmund W.

Problems in the Determination of Educability in Populations with Differential Characteristics.

Pub Date Jul 69

Note-34p.; Paper prepared for President's Committee on Mental Retardation, Washington, D.C.

EDRS Price MF-$0.25 HC-$1.80

Descriptors-Academic Aptitude, Cognitive Development, Comparative Analysis, Compensatory Education, Disadvantaged Youth, *Educational Diagnosis, *Educational Disadvantagement, Elementary School Students, Intellectual Experience, *Intelligence, *Learning Experience, Preschool Children, *Racial Differences, Racial Factors, Socioeconomic Influences

Financial and human resources are required to find pedagogical solutions to problems caused by the academically disabling characteristics of disadvantaged children. Insufficient resources and inappropriate methodology may have been the cause for the failure of compensatory education. Individual behavior styles and the nature of the academic experience must be more closely matched. Emphasis must be placed on the affective and conative as well as the cognitive aspects of learning. Educational appraisal must increasingly use qualitative measures and dynamic prescriptions. The academic experience must be individualized and made relevant to the life problems of the learner. (EM)

EDO 33174

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY.

09138 E

Prepared for President's Comm. on Mental Retardation.

PROBLEMS IN THE DETERMINATION OF EDUCABILITY IN POPULATIONS WITH DIFFERENTIAL CHARACTERISTICS

Edmund W. Gordon, Ed.D.
Teachers College, Columbia University
July, 1969

UD 009 138

- Introduction
- Differential Characteristics in Disadvantaged Populations
- The Protean Nature of Educability
- Educability and the Processes of Education

INTRODUCTION

The determination of educability in children from populations which show wide differentials in intellective and social functioning is simple but also complex. When the question is posed as a political problem, the answer is simply to declare that all children are educable and assign the responsibility to the schools for educating all children. Some of our activity on behalf of economically and socially disadvantaged children and youth have taken that form. We have agreed that these children should be educated. We have acknowledged or assumed that they are educable. We have greatly increased money and human resources directed at improving their education. We have developed varieties of compensatory education. Yet we have not been highly successful in educating poor and minority group children. We are now told (or reminded) by Jensen (1969) that the problem may be that these children, particularly the black ones, are genetically different and inferior. The allegation of genetic inferiority is a value judgment based largely on speculation and inference from a quite disparate body of empirical data. The fact of genetic difference is obvious with respect to certain physical traits but not so clear with respect to intellective and social behavioral characteristics. It is clear, however, that children who come from certain ethnic, cultural, and economic groups show some characteristics in high incidence. The hypothesis that some of these characteristics are hereditable is of course tenable. The fact that differences exist, however, is not debatable and may have relevance for the determination of educability. It is when the determination of

educability is posed as a pedagogical rather than political problem that the question becomes complex.

The complexity of this issue derives in part from the facts that educational treatments vary greatly with respect to content, focus, and goals, but are relatively non-variant with respect to method, while on the other hand patterns of intellective and social human functions vary with respect to affective qualities, cognitive syles, motivational forces, tasks involvement, and temperaments, etc. The variance in these patterns of human functions may require complementary variations in educational method as well as in content, focus, and goals. In the absence of such a match, individuals and groups with atypical patterns of intellective and social functions may be uneducable under that inappropriate set of conditions. These same individuals or groups may prove to be educable under a more appropriate set of pedagogical conditions. Thus in the present crisis over education for black, Puerto Rican, Mexican American, American Indian, poor white, or other disadvantaged groups, the questions of educability may prove to be recalcitrant of solution until we move beyond political declarations to find pedagogical solutions and commit the necessary financial and human resources to the application of these solutions.

DIFFERENTIAL CHARACTERISTICS IN DISADVANTAGED POPULATIONS

Available research data permit the identification of several categories of behavior which are encountered with great frequency among socially disadvantaged youth. First there are several studies which suggest that children from disad-

vantaged backgrounds in comparison with middle class children are less able to make use of conventional verbal symbols in representing and interpreting their feelings, their experiences, and the objects in their environments. It is important to note that the apparent deficiency is in the use of such conventional verbal symbols -- there is no definitive evidence that such children suffer from an underlying deficiency in symbolic representation.

Available evidence suggests that depressed language function can be the result of a variety of circumstances which make for disadvantaged status. Kellmer, Pringle, and Tanner (1958) found in a group of youth of comparable economic level, age, sex, and I.Q. differences on all quantitative measures of language function, differences which consistently favored children raised in their own homes as opposed to children raised in institutions. The authors suggested that youth raised in the institutions studied were disadvantaged by an insufficient language stimulation resulting in restricted capacity for language development. Other investigators have been concerned with language development in different economic groups. Davis (1937) found a considerably higher percentage of youth with good articulation among upper occupational groups than among lower. Beckey (1942) reported finding significantly more children with retarded speech among lower socioeconomic groups. Templin (1953) found a significant difference between children of upper and lower economic groups on tests of articulation, the difference being in favor of the higher economic group. Her data indicate that children of the lower socioeconomic groups take about a year longer to reach essentially mature articulation than do those of the upper group. Irwin (1948) reported that children after the

age of one-and-one-half showed significant differences in their mastery of speech sounds according to their father's occupational status -- with the advantage in the direction of the higher occupational groups.

Anastasi (1952) compared Negro and Caucasian children and found among the Caucasians a greater frequency of mature sentence types, more complex construction and better elaborated concepts. Hilliard (1957) approaching the questions inferentially, found that children with rich information backgrounds were better equipped for reading than were pupils whose previous experience had been meager. In studies by Thomas (1962) and Templin (1957) in which the variable studied was a number of words used per remark, Thomas' subjects drawn from a low socioeconomic group showed a mean of 5.6 words used, while Templin's subjects drawn from a middle class population showed a mean of 6.9 words per remark.

In what is probably the most careful, though limited, study of linguistic behavior in lower and middle class subjects, Bernstein (1961) reported that the language of lower class youths tends to be "restricted" in form. He characterized this language as serving to communicate signals and direction and to confine thinking to a relatively low level of repetitiveness. On the other hand, he described the language of the middle and upper classes as "elaborated" and serving to communicate ideas, relationships, feelings, and subjective states. These works suggest that symbolic representation is present in both classes, but also that important qualitative differences exist in the form and utilization of the symbol or language systems. These differences may have

important implications for learning. However, since these studies have not included analysis of learning facility or lack of it in terms of language forms and vernacular peculiar to the population, the data do not enable us to determine accurately the specific nature of the learning disabilities involved.

But the inferential conclusions drawn from these studies, relating school failure to differences in language development in disadvantaged children, gain some support from studies of concept development in this population. Riessman (1962) has described concept formation among the disadvantaged as content centered rather than form centered, their reasoning as inductive rather than deductive. Such a conceptual style has been viewed as limiting the child's ability to make accurate generalizations and to transfer knowledge utilizing previously learned concepts, (Gordon, 1963).

Deutsch (1963) and Hilliard (1957) have noted that increasing age amplifies the difference in the quality of language usage between classes; and Deutsch has suggested that if the acquisition of language is a prerequisite of concept formation and problem solving, then these evidences of relative increasing language deficiency would indicate a tremendous lower class deficit in conceptual formation. Deutsch (1963) found that his subjects, drawn from a disadvantaged population, were relatively proficient on motor tasks, on tasks which required a short time span, and on tasks which could be most easily related to concrete objects and services; but, as he later reported (1964) he found lower class children generally inferior in abstract conceptualization and in the categorizing of visual stimuli. Ausubel (1963)

concluded that when there was a delay in the acquisition of certain formal language forms, there was a resultant difficulty in making the transition from concrete to abstract modes of thought.

In a cross cultural inventory of the arithmetic concepts of kindergarteners, Montague (1964) found significant differences between social classes in favor of the higher SES group; but Deutsch (1960) found that arithmetic scores were higher than reading scores among a population of lower class children, even though both were depressed below national norms. In interpreting this finding, the investigator suggested that the difference might be accounted for by a hypothesis that reading involves motivations arising from specific value systems not shared by the disadvantaged society, while arithmetic may involve concrete acts, such as marketing, which are common to the society. In the work of the author (Gordon, 1965) in Prince Edward County, Virginia, arithmetic scores were similarly found to be less depressed than reading scores in the 7 to 10 year age groups. These children who had been deprived of formal education for four years are thought to have developed simple arithmetic skills in their everyday chore experiences. These experiences did not, however, provide a basis for the casual or incidental acquisition of reading skills.

If these assumptions about the experience-based distinctions between acquisition of reading and arithmetic skills are correct, then the Montague, Deutsch, and Gordon data would seem to support the observation that disadvantaged children tend to depend more on concrete than symbolic experience

in dealing with concepts. In a study by Siller (1957), however, this view is subjected to closer examination. Studying 181 white sixth graders, he found that higher status children (a) scored higher than lower status children on all tests of conceptual ability; (b) showed a significantly greater tendency toward abstraction in making choices between types of definitions than lower status children; and (c) when matched with lower status subjects on non-verbal tests, scored higher than their counterparts on tests of verbal concepts. When, however, the groups were matched on the basis of I.Q. scores, none of the above differences remained. The investigator suggests that this is due to an elimination of the lower extreme of the low status group which in turn suggests that differences with respect to conceptual style may be a result of generally lower levels of intellectual function (as measured on intelligence tests) among lower status children. Thus, while there is a considerable body of evidence to support the statement that lower status children tend to show preference for concrete as opposed to abstract frames of reference in concept formation, the origin and nature of this style dominance and its relationship to intelligence and the teaching-learning process are yet to be established.

Among other disadvantageous characteristics, disadvantaged children have been noted by several investigators and observers to demonstrate perceptual styles and perceptual habits which are either inadequate or irrelevant to the demands of academic efficiency. Although high levels of perceptual sensitization and discrimination are often present, these skills to be better

developed in physical than in visual behavior and in visual than in aural behavior (Riessman, 1962). Probably the most significant characteristic in this area is the extent to which these children fail to develop a high degree of dependence on the verbal and written language forms of academicians for learning cues. Many of the children simply have not adopted the modes of reception and expression which are traditional to and necessary for success in school.

The extent to which styles of perception and expression differ among children of different backgrounds is well documented. In his study of retarded, average, and gifted children, Jensen (1963) concluded that many children viewed as retarded have merly failed to learn the verbal mediators which facilitate school learning. Earlier Carson (1960) found white children superior to Negroes and northern Negroes superior to southern Negroes when it came to understanding the meanings of words used in communication. In a study of children's use of time in their own stories, Leshan (1952) found that time orientation varies with social class and that middle and upper class children told stories involving a more prolonged period of time than those of lower class children. Riessman (1962) includes slowness as a feature of the cognitive functioning of disadvantaged youngsters, a conclusion arrived at by Davidson some ten years earlier (1950) on finding differences in speed of response to be primarily responsible for racial differences in I.Q. estimated by timed performance tests. Deutsch (1964) found lower class children relatively poorer in auditory discrimination, in recognizing perceptual similarities, and in the syntactical manipulation of language.

Earlier (1960) he had found them inferior to a control group on tasks requiring concentration and persistence.

In fact, many of the children with whom we are concerned show a marked lack of involvement with, attention to, and concentration on the content of their academic experiences. There are few academic tasks which commit them to deep involvement. Their work habits are frequently insufficiently developed. Because of the high interest demands of non-academic experiences and the relatively low-interest demands of academic experiences, they are limited in their ability to inhibit responses to those stimuli which are extraneous to academic learning and to disinhibit responses which are pertinent to academic learning. Deutsch (1960) reported that lower class children tend to ignore difficult problems with a "so what" attitude and that as a result, over a period of time, their learning is decreased proportionately. Ausubel (1963) found that lower class children depend more on external as opposed to internal control than do children from the middle class.

Moreover, socially disadvantaged children have been determined by several investigators to be less highly motivated and to have lower aspiration for academic and vocational achievement than do their middle and upper class school peers. The degree of motivation and the direction which it takes among many of these children are often inconsistent with both the demands and the goals of formal education. But although the quality of aspiration is often depressed, it is usually consistent with the child's perceptions of the opportunities and rewards available to him. Symbolic rewards and postponements of

gratification appear to have little value as positive motivators of achievement. For these children goals tend to be self-centered, immediate, and utilitarian, as are the goals of the dominant culture. However, children growing up under more privileged circumstances have available many sources of immediate satisfaction and immediate feedback as well as many more evidences of the utilitarian value of academic effort. The differences between the privileged and the disadvantaged in this area are not so much differences in values as differences in the circumstances under which the values are called into play. Although the values from which motivation is derived in the disadvantaged child seem to reflect the dominant-culture concern with status, material possessions, in-group morality, Judeo-Christian ethics, competition, etc., there is usually lacking a concern with the aesthetics of knowledge, symbolization as an art form, introspection, and competition with one's self. In other words, dominant societal goals and values are operative, but their direction and context may not be complementary to academic achievement.

Rosen (1956) observing a relationship between high motivation and high grades postulated that middle class children are more likely to be taught the motives and values which make achievement possible. Similarly, in Gould's study, (1941) only sons who internalized their parent's values of aspiration were sufficiently motivated to overcome obstacles which faced them in school. Bernstein (1960) found achievement strivings arising from parental demands for success to be a more central motivational factor among

middle class than among lower class children.

Closely related to these motivational factors are attitudinal factors, and these too are often a source of problems in educational planning for disadvantaged children. Hieronymus (1951) found that higher socioeconomic status was correlated with a high level of aspiration and positive attitudes toward school while negative attitudes toward school and lower levels of aspiration were more frequently encountered in lower socioeconomic status groups. Sewell's (1957) finding that educational aspirations tend to be greatly influenced by class values in a manner favoring the middle and upper classes is consistent with the earlier work. Among other characteristics which have been referred to in this population are utilitarian attitudes toward knowledge and negative attitudes toward the pure pursuit of knowledge. Many of these chilren and their parents view education primarily in terms of its job market value and their orientation is toward achieving the minimum level of education connensurate with employability. Carrol (1945) sees the lower class ideal self as characterized by personal beauty and fame, not the moral and intellectual qualities which characterize the ideal self of middle class children.

As important as these attitudes toward school and learning may be, it is in the area of attitude toward self and others that the crucial determinants of achievement and upward mobility may lie, and it is in these areas that our data are least clear. It has been observed by some that disadvantaged children show affinity for ingroup members and demonstrate a sense of distance from or

even hostility toward representatives of outgroups, whether in peer or non-peer relationships. Contrastingly, other observers have noted the high degree of respect and awe in which these children hold selected outgroup status persons or idealized models. Tendencies toward self-depreciation and depressed self-concepts have been noted by several observers, (Dreger, 1960; Keller, 1963; and Silverman, 1963). Goff (1954) found that lower class children have more feelings of inadequacy in school than do children from the middle class. On the other hand, some recent findings (Gordon, 1965) suggest that depressed self-concept is not so prevalent a condition, and that even where present it may have little negative bearing on achievement. In fact, it is entirely possible that positive or negative feelings of self-worth may operate respectively to depress or accelerate achievement. Furthermore, it is in this area that the rapidly changing national and world situations involving underdeveloped peoples are likely to be most influential, and it is difficult to predict the ultimate effect of these altered situations on self-perception and behavioral change. Our knowledge and even our researchable hunches are as yet limited. But it is around these changing situations that the school may yet find a fulcrum on which to lever up motivation, aspiration, and involvement. There is growing empirical evidence to support the view that young people actively associated with the current civil rights struggle draw from their involvement in that effort a new source of motivation and an enhanced view of themselves (Coles, 1963). The impression is gained that such experiences are reflected in greater application of effort to and greater achievement in academic endeavors. The evidence for such improvement is less clear, yet there can be

little doubt that attitudes toward self and toward the environment in relation to self are crucial variables in academic as well as in social and emotional learning situations. One of the clearest findings coming from the Coleman Report (1966) indicates the crucial role of a sense of environmental control in academic achievement. The importance of an individual's sense of personal ability to influence his future through his own efforts is exceeded only by family background characteristics as a contributor to school achievement. With the notable exception of Riessman (1962) attempts at identification of positives or strengths in this population are hard to find. However, even in Riessman's treatment there is a tendency to romanticize these characteristics which may be a more serious error than to ignore them. Among the several positives which may be identified are those behaviors and conditions which can be utilized and built upon for the purposes of educational improvement. It is extremely important to recognize that selective motivation, creativity, and proficiency are present in this population; and, as Riessman has consistently stressed, if we look for these characteristics in their traditional form and along traditionally academic dimensions, we shall merely insure that they not be found. These children, like others are motivated by some factors in the field. They show creativity in some situations. They are proficient at some tasks and under some conditions.

Reference has earlier been made to problems in language development and use. In contrast to the colloquially accepted concept that language is inadequate in this population is the proposition that there exist in disadvantaged populations

quite complex languages. The form in which the language is expressed may not be verbal nor may the specific symbols be consistent with those normative to the dominant culture. But the presence of a language system or a system of symbolic representation adequate to the needs of the culture in which it has developed should not be ignored. The important question then becomes not whether language exists, but to what extent a given language system may be utilized in understanding and managing advanced conceptual problems. If the facts and integrative relationships of science, or the conceptual explorations of philosophy cannot be expressed in symbols capable of incorporation into the language system in question, then that language, though it may be adequate for the culture in which it exists, is inadequate to the demands of contemporary educational processes. To date, investigations into the utilitarian dimensions of divergent language patterns have not been conducted. Our research has established the fact of language differences (Deutsch, 1963, 1964; Jensen, 1963; John, 1964), and in addition we know something of the nature of these differences. The Bernstein work (1960, 1961) referred to earlier characterized lower class language as restricted and middle class language as elaborated. Strodbeck (1964) has described a mechanism by which such language systems may develop and be perpetuated. He identifies this mechanism in the context of intrafamilial decision theory where the elaborative characteristic of middle class language is a product of parity (and thus conflict) in the decision making process in the middle class home. Restricted language on the other hand develops as a product of unilateral decision making in the lower class home. In a situation involving equality and conflict of

ideas the learner (child) early develops sensitivity to language as a vehicle for the elaboration of ideas. Where the opposite situation exists, the child early develops sensitivity to language as a vehicle for the communication of signals or directions. Some findings of C. Deutsch (1964) indicate that there are significant class differences in the time spent in parent-child communication -- the length of such communication is considerably shorter for lower class than for middle class subjects. This difference has been viewed as a handicap, but it may be that given a different instructional method this proclivity for brief verbal communicative contact could be an advantage to the learner.

Much of our knowledge concerning children from socially disadvantaged backgrounds has been drawn by inference from the wide literature on juvenile delinquency. Sensitive analysis of this literature leads to an awareness of several other characteristics of this population. One cannot study the literature on boys' gangs or juvenile offenders without coming to the conclusion that these youngsters show ingeniousness and resourcefulness in pursuing self-selected goals and in coping with very difficult and complex conditions of life. Such coping behavior reflects accuracy of perception and generalization around a variety of social, psychological, and physical phenomena. It is at once obvious that these children are capable of meaningful and loyal personal relationships and operate with an ingroup morality that surpasses that of some more privileged segments of society. In many situations where the problems flow from the experiences and are important for the self-selected goal, such operations as memory, recall, computation, and representation have been demon-

strated to be functionally adequate.

The second area to which research attention has been directed is the environment. Studies referrable to environmental concern have consisted largely of a cataloguing of the factors in homes and communities from which disadvantaged children come which may interfere with normal school achievement. Such studies have often been conducted with the ultimate aim of incorporating knowledge obtained from them in the training of school personnel so that they may "understand" the culture and the values of their pupils. The concurrence between certain conditions of life, certain population characteristics and poor school adjustment has been interpreted as indicating a casual relationship, though the evidence supports only the conclusion that these phenomena are correlated. Such studies, while they may have social-anthropological value, are of questionable use in planning educational programs for these children. It is probably true that adverse conditions of life do not facilitate academic achievement in most children, but we have no firm evidence that such conditions preclude academic success. In fact, there are sufficient cases of success despite adverse conditions to make untenable the conclusion that difficult life circumstances prevent success in school. Insufficient attention has been given to the fact that many "normal" and well-functioning individuals have such adverse circumstances in their lives. There are many good reasons for improving the living conditions of the disadvantaged, and there is certainly no good excuse for an affluent society to fail to do so, but a concern on the part of the school for changing

poor conditions of life should not substitute for a primary concern with the improvement of the teaching-learning process.

THE PROTEAN NATURE OF EDUCABILITY

One of the traditional roles of education in the U.S.A. has been to broaden opportunities for productive, influential, and rewarding participation in the affairs of the society by developing those skills and entry credentials necessary for economic survival and social satisfaction. The idea of education for all grew gradually. In this country we extended this opportunity to more and more of our people by a steady increase in the quantity of educational experiences available and the quality of the educational product. While the quantity of available educational experiences has grown, there also has been a marked increase in the quality of the skills and competencies demanded of those who would achieve much. Similarly, the individual's goals are higher. He wants to be productive in the sense that the society sees his effort as resulting in a valued product; influential in the sense that his participation is viewed as having some influence on outcomes; and rewarded for his effort both materially and psychologically.

Increased perception of this role of education makes us want to equalize access to basic education of high quality. Spurred on by the civil rights movement of the 1950's and 60's, equal opportunity in education has become an issue of crucial national concern. By many, it is regarded as the base for all the rights, privileges, and responsibilities of membership in this modern democratic society.

Our country's desire to equalize educational opportunities is in part a product of advances in the organization and development of human societies during the past six centuries. In earlier periods when neither the need nor the resources for wide access to education existed, the ideal of universal equalization of educational opportunities also did not exist, certainly not in the public policy sphere. The concept itself and the concern for its implementation could not have emerged as an important issue, even now, if we had not earlier developed an awareness of the universality of educability. Human societies have always considered educable those categories of persons thought to be needed in the maintenance of the social order. Consequently as the human resource requirements of social orders have changed, concepts of educability have changed. Educability in human subjects has been defined less by the actual potentials of persons and more by the level of society's demand for people capable of certain levels of function. In more simplistic and exclusive social systems, most people were considered uneducable and effort was not "wasted" on their formal training. As long ago as the early Christian period and as recently as the early nineteenth century, it was only the religious and political nobility who were thought to be capable and worthy of academic learning. The social order was maintained by the machinations of those elite groups and the simple and routine gaming, farming, and crafting skills of the illiterate masses. Under the triple pressures of the reformation in religion, mechanization in industry, and institutionalization in commerce, categories of persons thought to be capable of academic learning were greatly expanded. Opportunities for active participation in religious

activities and rituals made reading and writing more widely useable and salable skills. Similarly, the emergence of collective machine production in shops and the expansion of commerce and trade through institutions made necessary the broader distribution of these skills. The combined impact was a greatly increased societal need for computational and communicative skills in larger numbers of people. As a corollary, previously illiterate people were drawn into the small body of literates and the mass of "uneducables" was reduced.

In the United States, were religious freedom and diversity became widespread, where democracy in government became the ideal, and where industrialization and economic expansion advanced most rapidly, more and more literate persons were required. In mid-nineteenth century U.S.A., society's view of who could be educated quickly expanded to include all people in this country except for slaves. With the end of slavery and the incorporation of exslaves into the industrial labor force, exslaves gradually came to be regarded as educable. Through the exercise of briefly held political power, together with uneducated poor whites, they literally forced increased access to public education as a vehicle for their education. These indigenous poor were later joined by waves of immigrants who also saw the public school as their major route to economic and social salvation. In the metropolitan areas of the period, the school also became the major vocational training resource that prepared semiskilled and commercial workers for rapidly expanding industries. Although the school did not succeed in educating all of these new candidates,

the once narrowly defined concept of educability was now nearly universal in its inclusiveness.

Our conception of education has also changed over the years. In Thomas Jefferson's view the school was expected to provide the technical skills and basic knowledge necessary for work and economic survival. It was from newspapers, journals, and books, and from participation in politics that people were to be really educated. In reviewing Jefferson's position on education, Cremin (1965) has concluded that it never occurred to Jefferson that schooling would become the chief educational influence on the young. However, changes in the number and variety of persons served by the school, changes in the functioning of the society and changes in the nature of the skills and competencies required by the social order have also changed the nature of education.

By the middle of the nineteenth century in this country, public schools serving the upper classes had developed curriculums basic to a liberal education. In this period, the secondary school was quite selective and was designed to prepare a relatively few young people for entrance into college where most of them would pursue studies leading to one of the professions. While this trend continued through the latter half of that century, the first half of the twentieth century was marked by a high degree of proliferation in the development of technical and vocational training programs. Preparation in the liberal arts was considered a luxury and was thought by some to be relatively useless. It was the Jeffersonian concept of utilitarian education which pre-

vailed. And it was this utilitarian education which came to be the mode in the growing acceptance of universal educability. "Everyone can and should be taught to do useful work and to hold a job" was the prevalent view.

The wide acceptance of this view contributed to the salvaging of education for Negroes following the betrayal of the Reconstruction Period and its leadership. In the great debate symbolized by verbal conflict between Booker T. Washington and William E. B. DuBois, the real struggle was between those who stood for the narrow but practical training of the hands of Negro and poor children so that they could work and those represented by DuBois who believed in the broad and somewhat less immediately practical education of the mind through the liberal arts and sciences. Those favoring the training of the hands won that debate. Educational facilities for Negroes and other poor people slowly expanded under the banner of technical and vocational training. This may have been a victory for expanded access to education, but the neglected concern for the "liberating" study of the arts and sciences made this a victory from which true equality in education has yet to recover. We will return to this point later in this paper. At the moment our concern is with the protean nature of educability and education.

In this country the battle for equality of educational opportunity was first waged to establish public responsibility for the education of children in states where public education did not exist. This was followed by the struggle for adequate educational facilities and diverse educational programs. The twentieth century was one-third spent before the struggle for equal though separate schools

was engaged. By mid-century it was legally determined that in our society separate schools are intrinsically unequal. However, even before the 1954 Supreme Court school desegregation decision was promulgated, it was becoming clear that racially mixed school systems do not automatically insure education of high quality. This observation was supported by data on minority group children from schools in the North where varying degrees and patterns on ethnic mix were extant. Although the performance of minority group children in some of those schools was superior to that of such children in segregated systems in the South, differences in achievement and in the characteristics of their schools were notable.

The early nineteen sixties brought campaigns for education of high quality provided in ethnically integrated school settings. Some school systems responded with plans for the redistribution of school populations in efforts to achieve a higher degree of ethnic balance. Some of those, along with other schools, introduced special enrichment and remedial programs intended to compensate for or correct deficiencies in the preparation of the children or the quality of the schools. Neither these efforts at achieving integrated education nor at developing compensatory education resulted in success. Ethnic balance and educational programs of high quality proved impossible to achieve instantaneously. Confronted with the failure to obtain ethnic integration and high quality in education, and given the recalcitrant presence of segregation in schools north, south, and west, the goals for many minority group parents shifted. In the late nineteen sixties the demand is made for education of high quality, where possible,

on an ethnically integrated basis. However, where segregation exists (and it does exist for the great majority of ethnic minorities in this country) the demand increases for control of those schools, serving such children, by groups indigenous to the cultures and communities in which they live. Hence the demand for "black schools run by black people."

Alongside this growing acceptance and promotion of ethnic separation, there continues to be concern for ethnic integration in education and compensatory education as complemtary strategies in the equalization of educational opportunity. The introduction of the concept "compensatory education" grew out of the recognition that learners who did not begin from the same point may not have comparable opportunities for achievement when provided with equal and similar educational experiences. To make the opportunity equal, it is argued, it may be necessary to make education something more than equal. It may be necessary to compensate for the handicaps if we are to provide education of equal quality. It may be necessary to change the educational method and create new models in order to meet the learning need and style of the youngster who comes to school out of a different background of experiences.

EDUCABILITY AND THE PROCESSES OF EDUCATION

To give meaning to the concept of educability in populations where there is deprivation of developmental and educational opportunity, several educational preconditions are indicated. These include (1) provision for a more appropriate distribution of emphasis between the affective, cognitive, and conative aspects of learning; (2) a shift in emphasis in educational appraisal from quantitative measures and static prediction to qualitative measures and dynamic prescription; (3) increased attention to individually prescribed learning experiences; and (4) greater concern for insuring that the learning experience is relevant to the general experience of the learner.

Affective, Cognitive, and Conative Aspects of Learning

Zigler (1966) has suggested that the relative lack of success in many of our programs of compensatory education may be due in part to the fact that so much of this effort has been directed at attempting to modify the cognitive function of inefficient and retarded learners. He reminds us, however, that cognitive function may be the least malleable of human adaptive systems. The affective and conative systems may be more susceptible to change. In his research he has been able to demonstrate significant shifts in intellective function (reflected in intelligence test scores) as attributable to changes in motivation and task involvement without perceptible change in the quality of basic cognitive function. It may be that our efforts at improving the general functioning of these children would be more productive if the emphasis were placed instead on tapping the sources of motivation known to be intrinsic

to these learners and on the design of learning experiences directed at basic skills mastery. Productive function in these areas may lead to improved cognitive functions as a biproduct. Experimentation in these areas is not very extensive, save for the work of the behavioral analysis-contingency management clan.

Qualitative vs. Quantitative Approaches to Measurement

The heavy emphasis on reduced demand in curriculum modification for disadvantaged and retarded learners is partially a biproduct of our heavy dependence on quantitative approaches to measurement. When psycho-educational appraisal data are reported in terms of a score or a level of normalcy or retardation, educational planners have little basis for the design of learning experiences. On the other hand, qualitative appraisal data which are descriptive of intellective and social function lend themselves to the prescription of learning experiences which accommodate or complement cognitive style, temperamental traits, achievement patterns, and motivational states. Under such conditions, the predictive validity of measures of status may break down since the basis of predictions is our knowledge of how others of similar status have performed in fairly well standardized educational or treatment situations. Where the characteristics of the target population vary greatly and traditional approaches to education prove ineffective, a shift in educational appraisal may be necessary from quantitative measurement and static prediction to qualitative measurement and dynamic prescription.

Individually Prescribed Learning

In prescriptive design in education, the concern is with matching learning experiences to the characteristics and needs of children who vary in a number of ways. The major efforts so far have been directed at prescribing learning units which match the achievement level, learning rate, or special interests of individual children. Each child is encouraged to move at his own rate and in areas which are of greatest interest to him. Most of these programs use existing curriculum materials with varying degrees of modification. None of the programs have seriously engaged the problems of diagnosing affective and cognitive style and developing materials and techniques which match stylistic variations in learning behavior. As sophistication in qualitative appraisal advances, increased specification in the prescription of learning experiences becomes more possible. However, the ultimate value of individuation in education is dependent upon our ability to translate educational prescriptions into appropriate units of learning experience.

Learning Experiences which have Relevance for the Learner

In order to be maximally meaningful to a child, education must be relevant in three areas: 1) it must relate to him as an affective being through its materials, experiences, and people with which he can identify; his motivation to learn will be more easily tapped when the learning task leads to goals which he perceived himself as valuing; (2) the content and form of the learning experience must be suited to his cognitive style and temperamental characteristics, and must complement his stage of cognitive development; this implies a sensitive

determination of the curriculum to be presented as well as the manner in which it is offered to the child; and (3) it must have social or utilitarian relevance; i.e. it must offer those skills and competencies which will expand the realm of functional choice available to the child. In this concern with expanding choices, it may be necessary to include some educational areas with which he does not immediately identfiy, since it will be based not only on what he would need for adaptation to society at present, but on the projections of what he might need in the future.

In general, the emphasis in attempts to provide relevant education has tended to shift back and forth between a stress on cognitive achievement or development and on emphasis on socialization or "development of the whole child," with few attempts to focus on both simultaneously in an integrated manner. In the recent flurry of activity to improve education for disadvantaged learners, considerable effort has been directed at somehow changing cognitive functioning. Unfortunately, to date there has been relatively little success in developing effective tools to shape this area of functioning. At the same time, emerging research is beginning to make more respectable a renewed emphasis on affective (attitudinal and motivational) processes in learning.

This renewed concern with affect, however, must be distinguished from much of the traditional approach which has concentrated on means of motivating, rather than on ways of using existing motivation. Little attention has been given to providing role models with which the child can identify or to modifying the school so that it and its values have meaning for the child.

Educability may be defined as the condition of being capable of academic learning mastery. The educability of mentally subnormal children, be they mentally defective or socially and educationally deprived, continues to elude definitive determination. Undoubtedly, some of these children are irreversably retarded. Just how many is an unanswered question. Possibilities for the determination of educability through more appropriate and diligently applied educational processes are asserted to exist. It has been suggested that the failure of compensatory education for disadvantaged children may be the result of insufficient and inappropriate resources and methodology. Given the high incidence of characteristics in this population which are non-supportive of academic achievement and the relative non-variant nature of traditional approaches to education, there may be greater promise in effort directed at the development of a match between the individual's behavioral style and background of experience on the one hand, and the nature and content of the learning experience on the other. The fact that they are atypical requires that we give greater attention to what we know about and is implied by our concept of individual differences.

BIBLIOGRAPHY

Anastasi, Anne; and D'Angelo, Rita Y., "A Comparison of Negro and White Preschool Children in Language Development and Goodenough Draw-A-Man IQ." Pedagogical Seminary and Journal of Genetic Psychology (Journal of Genetic Psychology), Vol. 81, December 1952, pp.147-165.

Ausubel, David P.; and Ausubel, Pearl, "Ego Development Among Segregated Negro Children," pp.109-141 in Passow, A. Harry, ed., Education in Depressed Areas. New York: Bureau of Publications, Teachers College, Columbia University. 1963. 359pp.

Beckey, Ruth Elizabeth, "A Study of Certain Factors Related to Retardation of Speech." Journal of Speech Disorders, September 1942, Vol.7, pp.223-249.

Bernstein, Basil, "Language and Social Class." British Journal of Sociology, Vol. II, September 1960, pp.271-276.

Bernstein, Basil, "Social Class and Linguistic Development: A Theory of Social Learning," Chap. 24, pp.288-314 in Halsey, A.H.; Floud, J.; and Anderson, C.A., eds., Education, Economy, and Society. New York: Free Press of Glencoe, Inc. 1961. 640pp.

Carroll, Rebecca Evans, "Relation of Social Environment to the Moral Ideology and the Personal Aspirations of Negro Boys and Girls." School Review, Vol.53, January 1945, pp.30-38.

Carson, Arnold S., and Rabin, A.I., "Verbal Comprehension and Communication in Negro and White Children." Journal of Education Psychology, Vol.51, April 1960, pp.47-51.

Coleman, James S.; and others. Equality of Educational Opportunity. Washington, D.C.: U.S. Government Printing Office, 1966. 737p.

Coles, Robert. The Desegregation of Southern Schools: A Psychiatric Study. New York: Anti-Defamation League, July 1963. 25p.

Cremin, Lawrence A. The Genius of American Education, University of Pittsburgh Press, Pittsburgh, Pa., 1965.

Davidson, Kenneth S.; and others. "A Preliminary Study of Negro and White Differences on Form I of the Wechsler Bellevue Scale." Journal of Consulting Psychology, Vol.14, October 1950, pp.489-492.

Davis, Edith A. The Development of Linguistic Skill in Twins, Singletons with Siblings, and Only Children from Age Five to Ten Years. Institute of Child Welfare Monograph Series No.14. Minneapolis, Minnesota: University of Minnesota Press, 1937. 165p.

Deutsch, Cynthia. "Auditory Discrimination and Learning: Social Factors." Merrill-Palmer Quarterly, Vol.10, July 1964. pp.277-296.

Deutsch, Martin. Minority Group and Class Status as Related to Social and Personality Factors in Scholastic Achievement. Society for Applied Anthropoly, Monograph No.2. Ithaca, New York: Cornell University. 1960. 32p.

Deutsch, Martin. "The Disadvantaged Child and the Learning Process," pp.163-179 in Passow, A. Harry, ed., Education in Depressed Areas. New York: Bureau of Publications, Teachers College, Columbia University. 1963. 359p.

Deutsch, Martin; and Brown, Bert. "Social Influences in Negro-White Intelligence Differences." Journal of Social Issues, Vol. 20, April 1964. pp.24-35.

Dreger, Ralph Mason; and Miller, Kent S., "Comparative Psychological Studies of Negroes and Whites in the United States." Psychological Bulletin, Vol. 57, September 1960, pp.361-402.

Goff, Regina M. "Some Educational Implications of the Influence of Rejection on Aspiration Levels of Minority Group Children." Journal of Experimental Education, Vol.23, December 1954, pp.179-183.

Gordon, Edmund W. "The Relevance of Behavior Theory for Directed Learning in Disadvantaged Children." Unpublished paper, presented at Annual Meeting of the American Association of Orthopsychiatry, March 1963.

Gordon, Edmund W. Educational Achievement in the Prince Edward County Free School, 1963-64. New York: Ferkauf Graduate School of Education, Yeshiva University. 63p. Mimeographed. 1965.

Gordon, Edmund W. "Help for the Disadvantaged?" American Journal of Orthopsychiatry, Vol. 35, April 1965, pp.445-448.

Gould, Rosalind, "Some Sociological Determinants of Goal Strivings." Journal of Social Psychology, Vol.13, May 1941, pp.461-473.

Hieronymus, A.N., "Study of Social Class Motivation: Relationships Between Anxiety for Education and Certain Socio-Economic and Intellectual Variables." Journal of Educational Psychology, Vol.42, April 1951, pp.193-205.

Hilliard, George H.; and Troxwell, Eleanor, "Informational Background as a Factor in Reading Readiness and Reading Progress." Elementary School Journal, Vol.38, December 1957, pp.255-263.

Irwin, Orvis C., "Infant Speech: The Effect of Family Occupational Status and of Age on Use of Sound Types." Journal of Speech and Hearing Disorders, Vol.13, September 1948, pp.224-226.

Jensen, Arthur R., "Learning Ability in Retarded, Average, and Gifted Children." Merrill-Palmer Quarterly, Vol.9, April 1963, pp.123-140.

Jensen, Arthur R., "How much Can We Boost IQ and Scholastic Achievement?" Harvard Educational Review, Vol.39 #1, Winter 1969, pp.1-123.

John, Vera P.; and Goldstein, Leo S. "The Social Context of Language Acquisition." Merrill-Palmer Quarterly, Vol.10, July 1964, pp.265-276.

Keller, Suzanne, "The Social World of the Urban Slum Child: Some Early Findings." American Journal of Orthopsychiatry, Vol.33, October, 1963, pp.823-831.

LeShan, Lawrence L., "Time Orientation and Social Class." Journal of Abnormal and Social Psychology, Vol.47, July 1952, pp.589-592.

Montague, David O., "Arithmetic Concepts of Kindergarten Children in Constrasting Socioeconomic Areas." Elementary School Journal, Vol.64, April 1964, pp.393-397.

Pringle, M. L. Kellmer, and Tanner, Margaret, "The Effects of Early Deprivation on Speech Development: A Comparative Study of Four Year Olds in a Nursery School and in Residential Nurseries." Language and Speech, Vol. I, October-December 1958, pp.269-287.

Riessman, Frank, The Culturally Deprived Child. New York: Harper & Row, 1962. 140p.

Rosen, Bernard C. "The Achievement Syndrome: A Psychocultural Dimension of Social Stratification." American Sociological Review, Vol. 21, April 1956. pp.203-211.

Sewell, William H.; Haller, Archie O.; and Straus, Murray A. "Social Status and Educational and Occupational Aspiration." American Sociological Review, Vol. 22, February 1957, pp.67-73.

Siller, Jerome. "Socioeconomic Status and Conceptual Thinking." Journal of Abnormal and Social Psychology, Vol.55, November 1957, pp.365-371.

Silverman, Susan B. Self-Images of Upper-Middle Class and Working Class Young Adolescents. Unpublished master's thesis, University of Chicago.

Strodtbeck, Fred L. "The Hidden Curriculum of the Middle Class Home," pp.15-31, in Hunnicutt, C.W., ed., Urban Education and Cultural Deprivation. Syracuse, N.Y.: Syracuse University Press. 1964. 126p.

Templin, Mildred C. "Norms on Screening Test of Articulation for Ages Three Through Eight." Journal of Speech and Hearing Disorders, Vol.18, December 1953, pp.323-331.

Templin, Mildred C. Certain Language Skills in Children; Their Development and Interrelationship. Institute of Child Welfare Monograph Series No. 26. Minneapolis: University of Minnesota Press. 1957.

Thomas, Dominic Richard. Oral Language, Sentence Structure and Vocabulary of Kindergarten Children Living in Low Socioeconomic Urban Areas. Doctoral Thesis. Detroit, Michigan: Wayne State University. 1962. 393p. Abstract: Dissertation Abstracts, Vol. 23, No.3, 1962, p.1014.

Zigler, Edward. Mental Retardation: Current Issues and Approaches. In: Review of Child Development Research. Edited by Lois Wladis Hoffman and Martin L. Hoffman. New York: Russell Sage Foundation, 1966. pp.107-168.